

### Standard PCI Express® Add-In Board for Embedded Market — Drives Up to Four Displays

### PCI EXPRESS® ADD-IN BOARD

- > Single slot
- > Passive heatsink
- > Multiple display output models

### AMD RADEON™ E6460 EMBEDDED GPU

> Discrete GPU with 512 MB GDDR5

## EXCEPTIONAL GRAPHICS & VIDEO

- > Microsoft® DirectX® 11 capable
- > 3DMark® VantageP score of P21951
- > 3<sup>rd</sup> generation video decoder

#### AMD EYEFINITY TECHNOLOGY<sup>2</sup>

> Up to 4 display outputs

### HD3D TECHNOLOGY3

> Blu-ray 3D, stereo 3D graphics

### **EXTENDED AVAILABILITY**

- > 5 year planned supply4
- > Dedicated support

# Embedded Applications Benefit from Feature Rich PCI Express® Board

The exceptional feature set of the AMD Radeon™ E6460 embedded discrete graphics processor (GPU) is now available on an industry standard PCI Express® PC add-in board. Featuring advanced 3D graphics, video and compute capabilities, this board is available in a variety of different models with a passive thermal solution and different display output options (DVI, DisplayPort). Supporting up to four displays with AMD Eyefinity multi-display technology², the AMD Radeon E6460 graphics board is ideal for entry level digital signage, video wall, arcade and casino gaming systems.

#### **Exceptional Graphics and Compute Capabilities**

The AMD Radeon E6460 graphics board enables an exceptional entertainment experience with immersive desktop-level 3D graphics and outstanding multimedia features. The advanced 3D graphics engine supports Microsoft® DirectX® 11 technology for superior graphics rendering. The third generation unified video decoder enables picture-in-picture, dual HD decode of H.264, VC-1, MPEG4 and MPEG2 compressed video streams. Delivering 192 GFLOPs of peak single precision floating point performance, the AMD Radeon™ E6460 graphics board is ideal for general purpose, graphics processing unit (GPGPU) applications.

# Ultimate Display Flexibility with Support for Up to Four Displays

To suit different display applications, the AMD Radeon E6460 graphics board is available in different models with different output display interfaces including (a) dual DVI + mini DisplayPort 1.2, (b) four mini DisplayPort and (c) four DVI (with four mini DisplayPort to DVI dongles) outputs. With AMD Eyefinity multi-display technology, the four displays can be driven independently or all together as a single large surface. With the multi-stream transport (MST) capabilities of DisplayPort 1.2, up to three displays to be driven from a single DisplayPort 1.2 connector.

### Designed to Perform, Engineered to Lead, Built to Win

AMD understands the unique requirements of the embedded market. Building on a proven track record of customer-centric innovation, AMD offers the AMD Radeon™ E6460 graphics board with a 5 year planned product life cycle. With specialized technical support and fast time-to-market, the AMD Radeon™ E6460 graphics board provides system designers with an exciting and innovative solution for their embedded graphics or GPGPU applications.

### AMD Embedded Solutions







### AMD RADEON E6460 GRAPHICS OR PCIE EXPRESS® BOARD MODELS



Dual DVI + DisplayPort

4x DisplayPort



4x DVI (w 4x mDP to DVI dongle)

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	Al	MD Radeon <sup>™</sup> E6460 Graphics Board Overview
Board dimensions (single slot, L x H mm, nominal)	Dual DVI + DisplayPort	Heatpipe 187 x 111 mm
	4x DisplayPort	Heatpipe 180 x 93 mm
	4x DVI	Heatpipe 188 x 111 mm
Thermal Design Power⁵ (TDP)		Dual DVI + DisplayPort: 19W 4x DisplayPort: 19W 4x DVI: 21W
E6460 Graphic	cs Processing Unit	
Process Technology		40 nm
Graphics Engine / Memory Clock		600 MHz Engine/800 MHz Memory
Memory		64-bit, 512 MB GDDR5, 25.6 GB/s
Host Interface		PCI Express <sup>®</sup> Version 2.1 (x1, x2, x4, x8, x16)
Graphics		160 shaders 3DMark <sup>®</sup> VantageP score of P2195 DirectX <sup>®</sup> 11, Shader Model 5.0, OpenGL 4.1
Video		3 <sup>rd</sup> Generation Video Decoder H.264, VC-1, MPEG-2, MPEG-4 part 2 decode Blu-ray 3D & stereo 3D graphics with AMD HD3D technology
Compute		192 GFLOPs/s single precision floating point (peak) AMD APP technology <sup>6</sup> , OpenCL <sup>™</sup> 1.1 <sup>7</sup> , DirectCompute 11
Display		Up to 4 displays with AMD Eyefinity multi-display technology
Audio		Integrated HD audio controller (Azalia) & Codec
Display Interfa	aces <sup>8</sup> (max resolution)	
Analog VGA		1x Triple 10-bit RGB DAC, 400 MHz, (2048 x 1536)
Single / Dual-Link DVI Resolution (w HDCP)		2x single-link DVI, (1600 x 1200) / 1x dual-link DVI, (2560 x 1600), 162 MPixels/s per link
DisplayPort		2x DisplayPort 1.1a, 3x DisplayPort 1.2, (2560 x 1600)
Board Model D	isplay Options	
Dual DVI + DisplayPort		1x single-link DVI-D + 1x dual-link DVI-I + 1x mini DisplayPort 1.2a
4x DisplayPort		1x mini DisplayPort 1.1a + 3x mini DisplayPort 1.2a
4x DVI		4x single-link DVI-D (with 4x mini DisplayPort -→ DVI dongles)
Software Sup	port	
Windows <sup>®</sup> XP / Windows <sup>®</sup> XP Embedded <sup>9</sup>		yes
Windows Vista® / Windows® 7		yes
Linux® (x86)		yes

- 1. System configuration: 1280x1024, E6460: 600e/800m, 512MB GDDR5, AMD: AMD Athlon<sup>™</sup> II X4 620 ® 2.6GHz, MSI Gigabyte GA-MA770T-UD3P, Corsair XMS3 4GB (2x2GB) 1333MHz 9-9-9-24 (TW3X4G1333C9A G), Windows<sup>®</sup> 7 64-bit Ultimate

  2. AMD Eyefinity technology can support multiple displays with some limitations. AMD Embedded Catalyst<sup>®</sup> Software driver version 8.81 or higher required to support AMD Eyefinity multi-display technology. Microsoft<sup>®</sup> Windows<sup>®</sup> 7, Windows Vista<sup>®</sup>, or Linux<sup>®</sup> is required in order to support more than 2 displays. SLS ("Single large Surface") functionality requires all display outputs to be configured as DisplayPort with an identical display resolution on all configured displays.

  3. AMD HD3D is a technology designed to enable stereoscopic 3D support in games, movies and/or photos. Additional hardware (e.g. 3D enabled panels, 3D-enabled glasses/emiter, Blu-ray 3D drive) and/or software (e.g. Blu-ray 3D discs, 3D middleware, games) are required for the enablement of stereoscopic 3D.

  4. Part availability is planned for 5 years from date of announcement and subject to change without
- 4. Part availability is planned for 5 years from date of announcement and subject to change without
- S. 3DMark® Vantage FT6, nominal silicon, 25 degC, 4x1920x1080 displays, except for AMD Radeon E6460 2xDVI+mDP graphics board, 3x1920x1080 displays.
- 6. AMD APP technology is a set of technologies designed to improve video quality and enhance application performance. Full enablement of some features requires support for OpenCL™ or DirectCompute (including AMD's Universal Video Decoder (UVD)). Not all products have all features and full enablement of some capabilities and may require complementary products.

- 7. OpenCL certification expected.
- 8. Not all display interfaces available at same time. Maximum resolution dependent on maximum 8. Not all display interfaces available at same time. Maximum resolution dependent on maximum supported display clock, link bit-rate and available memory bandwidth. Two internal PLLs + an integrated DisplayPort reference clock can support (1) two legacy display outputs + two DisplayPort outputs, (2) one legacy display output + three DisplayPort outputs or (3) four DisplayPort outputs. Legacy display = VGA, DVI, HDMI or LVDS. AMD Eyefinity multi-display technology has certain restrictions on supported display interfaces.
  9. Some features not supported (e.g. AMD Eyefinity, DirectX 11, AMD APP technology etc.)

Contact your local AMD distributor for ordering information.

OPN: 100-438047 E6460 512 MB RoHs AES PCIe Board DVI + Dual-Link DVI-I + mDP 1.2 w Heatsink

OPN: 100-438062

E6460 512 MB RoHs AES PCIe Board 4x mDP w Heatsink

OPN: 100-438048 E6460 512 MB RoHs AES PCIe Board 4x mDP w Heatsink & mDP-->DP dongles E6460 512 MB RoHs AES PCIe Board 4x DVI w Heatsink & DP→DVI dongles OPN: 100-438049

